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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/003,920	10/31/2001	Hideya Kawahara	SUN1P823/P5905	7758

22434 7590 12/14/2004

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EXAMINER

ZHEN, LI B

ART UNIT PAPER NUMBER

2126

DATE MAILED: 12/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/003,920

Applicant(s)

KAWAHARA, HIDEYA

Examiner

Li B. Zhen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 September 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>9/23/2002</u> . | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

1. Claims 1 – 39 are pending in the current application.

***Drawings***

2. Figures 1 and 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.121(d)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Information Disclosure Statement***

3. The information disclosure statement filed September 23, 2002 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each U.S. and foreign patent; each publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered. All of the non-patent literatures are missing pages. Reference C1, C3 and C4 are missing 4 pages; C2 is missing 1 page; and C5 is missing 11 pages. Applicant is advised to resubmit the references in its entirety so that the references may be fully considered.

***Claim Rejections - 35 USC § 112***

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4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1 – 39 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

6. Claims 1, 16 and 31 recite the limitation “an intermediary software component within an isolated execution unit” and claims 6, 21, and 34 recite, “the isolated execution unit is initialized by the intermediary software component”. It is unclear as to how a component [intermediary software component] located within an execution unit [isolated execution unit] can start or initialize the execution unit. As best understood by the examiner, the execution unit would need to be initialized and in execution mode in order for components [e.g. intermediary software component] within the execution unit to perform any operations [such as receiving request, establishing communication paths, or initializing execution unit]. If the examiner’s assumption is correct, this would suggest the execution unit is initialized more than once. Examiner would appreciate it if applicant clarifies the relationship between the intermediary software component and the isolated execution unit and the initialization of the execution unit and refer the examiner to specific disclosures of the specification.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claim 39 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

9. Claim 39 recites the limitation "a computer implemented system as recited in claim 12" in line 1. There is insufficient antecedent basis for this limitation in the claim. Claim 39 refers to the computer implemented system of claim 12, but claim 12 recites a method claim.

***Claim Rejections - 35 USC § 101***

10. Claims 1 – 15 are rejected under 35 U.S.C. 101 because they are directed to non-statutory subject matter.

11. Claims 1 – 15 are directed to method steps which can be practiced mentally in conjunction with pen and paper, therefore they are directed to non-statutory subject matter. Specifically, as claimed, it is uncertain what performs each of the claimed method steps. Moreover, each of the claimed steps, inter alia, introducing, indicating, starting, establishing, invoking, receiving and sending, can be practiced mentally in conjunction with pen and paper. The claimed steps do not define a machine or computer implemented process [see MPEP 2106]. Therefore, the claimed invention is directed to non-statutory subject matter. (The examiner suggests applicant to change "method" to "computer implemented method" in the preamble to overcome the outstanding 35 U.S.C. 101 rejection).

***Claim Rejections - 35 USC § 102***

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

13. **Claims 1 – 9, 12, 13, 15 – 24, 27, 28, 30 – 36 and 38 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,529,962 to Azagury et al. [hereinafter Azagury].**

14. As to claim 1, Azagury teaches a method for controlling or monitoring a target software component [target thread supply object 42, Fig. 2; col. 6, lines 1 – 16] of an isolated execution unit [target machine 40 comprise Java Virtual Machines, Fig. 2; col. 5, lines 55 – 60], the method comprising:

introducing an intermediary software component within an isolated execution unit [target MRM object 44, Fig. 2; col. 6, lines 1 – 16];

indicating an identifier of a target software component to the intermediary software component [determines the identity of the remote thread and other context parameters of the thread, such as priority, and incorporates the identity and other parameters into the intermediate thread; col. 6, lines 52 – 60];

starting the target software component having the indicated identifier within the isolated execution unit [method 200 is carried out by target thread supply method 142 in response to a remote call from source MRM 134. In an initial step 202, the thread supply object waits until it receives a remote request from step 154 of remote transmission method 150, whereupon the intermediate thread is generated; col. 11, lines 36 – 49]; and

establishing a communication path [call from object 36 is routed via source MRM 34 and then via target MRM 44. A remote transmission generated in machine 40 in response to the call, herein termed a callback, is routed via target MRM 44 and then via source MRM 34 back to source machine 30; col. 6, lines 17 – 27] between the intermediary software component [target MRM 44, Fig. 2; col. 6, lines 17 – 26] and an external program [object 36, Fig. 2; col. 6, lines 17 – 18] that is outside of the isolated execution unit [target machine 40 comprise Java Virtual Machines, Fig. 2; col. 5, lines 55 – 60] whereby the external program can control or monitor the target software component via the established communication path [a first program thread running on a source machine makes a remote call to a target machine; col. 2, lines 36 – 54; col. 13, line 57 – col. 14, line 6].

15. As to claims 2 and 3, Azagury teaches the established communication path [col. 6, lines 17 – 27] uses an inter isolation communication protocol that is a remote method invocation technique [object 236 on source platform 38 generates a remote call, and sends an invoker thread with a lock identity to a Java Remote Method Invocation

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process 241 comprised in source machine 30. Remote Method Invocation process 241 transfers the call and context parameters of the invoker thread, including the lock identity, to a corresponding Java Remote Method Invocation process 243 running target machine 40; col. 13, line 57 – 65].

16. As to claim 4, Azagury teaches the communication path is established by the intermediary software component [call from object 36 is routed via source MRM 34 and then via target MRM 44. A remote transmission generated in machine 40 in response to the call, herein termed a callback, is routed via target MRM 44 and then via source MRM 34 back to source machine 30; col. 6, lines 17 – 27].

17. As to claim 5, Azagury teaches initializing the isolated execution unit [generates a second thread to carry out whatever method or methods are required by the call; col. 2, lines 36 – 54 and col. 5, line 64 – col. 6, line 15].

18. As to claim 6, Azagury teaches the isolated execution unit is initialized by the intermediary software component [objects 34 and 44 respectively utilize thread supply objects 32 and 42 in order to generate one or more threads; col. 6, lines 17 – 27].

19. As to claim 7, Azagury teaches indicating one or more parameters for initializing the isolated execution unit, wherein the initialization of the isolated execution unit is based on the indicated one or more parameters [other context parameters of the thread,



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such as priority, and incorporates the identity and other parameters into the intermediate thread; col. 6, lines 52 – 60].

20. As to claim 8, Azagury teaches the external program indicates the one or more parameters [other context parameters of the thread; col. 6, lines 52 – 60].

21. As to claim 9, Azagury teaches indicating an execution control parameter to the intermediary software component [values of the context parameters are passed to the intermediate thread assigned; col. 7, lines 19 – 29]; and invoking the indicated execution control parameter on the target software component using an application programming interface (API) of the target software component [MRM 134 invokes a call on target machine 40, which uses or generates the intermediate thread using context parameters of the invoker thread passed to machine 40; col. 11, lines 1 – 11].

22. As to claim 12, Azagury teaches receiving a result at the intermediary software component from the target component in response to the invoked execution control parameter; and sending the result to the external program [return transmission may be either a result or a callback. If the return transmission is a result (not a callback), method 51 continues to a step 56, wherein the result is returned to the invoker thread; col. 6, line 62 – col. 7, line 1].

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23. As to claim 13, Azagury teaches the intermediary software component sends the result [waits in a waiting step 54 for a return transmission from MRM 44; col. 6, lines 62 – 67].

24. As to claim 15, Azagury teaches the identifier of the target software component is provided by the external program [MRM 34 determines the identity of the remote thread and other context parameters of the thread; col. 6, lines 52 – 60].

25. As to claims 16 – 24, 27, 28 and 30, these are product claims that correspond to method claims 1 – 9, 12, 13 and 15; note the rejections to claims 1 – 9, 12, 13 and 15 above, which also meet these product claims.

26. As to claims 31 – 36 and 38, these are system claims that correspond to method claims 1 – 3, 6, 7, 9 and 12; note the rejections to claims 1 – 3, 6, 7, 9 and 12 above, which also meet these system claims.

### ***Claim Rejections - 35 USC § 103***

27. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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**28. Claims 10, 11, 14, 25, 26, 29, 37 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Azagury in view of U.S. Patent No. 6,609,158 to Nevarez et al. [hereinafter Nevarez].**

29. As to claim 10, Azagury teaches execution control parameter [col. 6, lines 52 – 60] and the RMI inter isolation communication protocol [col. 13, line 57 – 65], but does not specify translating a request from a first format to a second format.

However, Nevarez teaches a translator [a universal language adapter 226; col. 10, lines 5 – 20] for translating a request in a first format to a second format that is acceptable by the API of the target software component [core 228 is thus a mapping layer or engine which converts script commands from the universal language adapter 226 into calls to the object model adapter 230; col. 10, lines 5 - 20].

30. It would have been obvious to a person of ordinary skill in the art at the time of the invention to apply the teaching of a translator for translating a request in a first format to a second format that is acceptable by the API of the target software component as taught by Nevarez to the invention of Azagury because this makes it easier for programs written according to different languages and/or different object models to communicate with each other and allows connection of disparate software components [col. 4, lines 9 - 11 and 29 - 30 of Nevarez].

31. As to claim 11, Azagury as modified teaches the intermediary software component performs the translation [col. 10, lines 5 – 20 of Nevarez].

32. As to claims 14 and 39, Azagury as modified teaches the result has a first format that is acceptable by the API of the target software component [remote provider 230 accepts calls from the object model adapter 246, uses standard network technology such as the remote bridge 248 to contact remote objects, and relays parameters and results; col. 10, lines 45 – 50 of Nevarez], the method further comprising translating the first format into a second format that is an inter isolation communication protocol before sending the result to the external program [col. 10, lines 5 – 20 of Nevarez].

33. As to claims 25, 26 and 29, these are product claims that correspond to method claims 10, 11 and 14; note the rejections to claims 10, 11 and 14 above, which also meet these product claims.

34. As to claim 37, this is a system claim that corresponds to method claim 10; note the rejection to claim 10 above, which also meet this system claim.

### ***Conclusion***

35. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

“Security in the Ajanta Mobile Agent System” teaches distributed mobile agents in protected domains that communicate with each other using RMI.

U.S. Patent No. 6,571,252 to Mukherjee teaches a distributed object system containing persistent objects.

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U.S. Patent No. 6,539,422 to Hunt et al. teaches a method for controlling a plurality of automatic data collection device platforms.


36. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Li B. Zhen whose telephone number is (571) 272-3768. The examiner can normally be reached on Mon - Fri, 8:30am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Li B. Zhen  
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Art Unit 2126

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